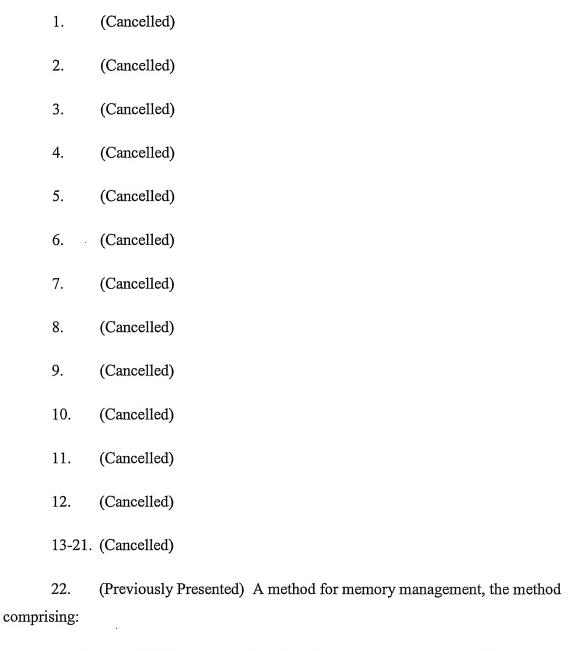
AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior listings of claims in this application.



receiving a notification of a cache fault from a cache device, the notification including a fault memory block and a fault memory line;

determining if a tag corresponding to the fault memory block is present in a tag cache, wherein the tag includes prefetch bits corresponding to memory lines contained in a memory block specified by the tag;

in response to not locating the tag corresponding to the fault memory block in the tag cache:

fetching the tag corresponding to the fault memory block into the tag cache;

prefetching the memory lines corresponding to the prefetch bits in the tag that are set to a prefetch status, said prefetching into the cache device; and

resetting each of the prefetch bits which were set to a prefetch status to a nonprefetch status with a selected probability, wherein the selected probability is one eighth; and

setting the prefetch bit corresponding to the fault memory line in the tag to the prefetch status.

23-32. (Cancelled)